



00/572191



US005198467A

United States Patent [19]
Milks**[11] Patent Number: 5,198,467**
[45] Date of Patent: Mar. 30, 1993**[54] INSECTICIDE FOR IMPORTED FIRE ANTS AND OTHER INSECT PESTS****[76] Inventor: Robert R. Milks, 1805 Oregon St.,
Baton Rouge, La. 70802****[21] Appl. No.: 558,753****[22] Filed: Jul. 27, 1990****Related U.S. Application Data****[63] Continuation-in-part of Ser. No. 142,525, Jan. 11, 1988,
abandoned.****[51] Int. Cl.⁵ A01N 41/04****[52] U.S. Cl. 514/553; 514/578****[58] Field of Search 514/553, 578; 424/410,
424/1; 426/1; 562/30, 113****[56] References Cited****U.S. PATENT DOCUMENTS**

3,220,921	11/1965	Greenbaum et al.	514/755
3,925,297	12/1975	Sprengling	523/200
4,092,110	5/1978	Adolph et al.	21/7
4,921,696	5/1990	Vander Meer et al.	424/84

OTHER PUBLICATIONS*CAS Registry Handbook*, 1985 Supplement, p. 2370RN (1985).*CAS Registry Handbook*, 1965-1971, p. 1696R (1971).Moot et al., *Chem. Abs.* 94(10): 67225m (1981).Frisch et al., *Chem. Abs.* 94(10): 75634j (1981).Umemura et al., *Chem. Abs.* 87(18): 128902j (1977).Karasawa et al., *Chem. Abs.* 85(12): 79831i (1976).

"Laboratory and Field Evaluation of Several Organochlorine and Organophosphorus Compounds for Control of Imported Fire Ants," Agricultural Research Service, U.S. Department of Agriculture, ARS-S-169, Oct., 1977, pp. 2-3.

Hamman, P. J., "Fire Ants and Their Control," Texas Agricultural Extension Service Publication L-2034,

The Texas A&M University System, College Station, Tex. (1987).

Vander Meer, R. K., Lofgren, C. S., and Williams, D. W., "Fluoroaliphatic Sulfones: A New Class of Delayed-Action Insecticides for Control of *Solenopsis invicta* (Hymenoptera: Formicidae)," *Journal of Economic Entomology*, vol. 78, No. 6, Dec., 1985, pp. 1190-1197. Vander Meer, R. K., *Chemical Abstracts*, vol. 100, No. 1, 2205c, Jan. 2, 1984, p. 193.*Primary Examiner*—Carolyn Elmore*Assistant Examiner*—Scott C. Rand*Attorney, Agent, or Firm*—William C. Milks, III**[57] ABSTRACT**

An effective delayed-action insecticide for use against the imported fire ant (IFA), as well as against infestations of other insects. The insecticide consists of an oil insoluble surfactant, preferably an anionic fluorochemical surfactant, as the active ingredient. The insecticide further consists of a carrier, which is a source of food for the IFA or other insect. This carrier is impregnated with the anionic fluorosurfactant to provide a toxic bait. In a preferred embodiment, the insecticide contains 0.3 to 0.5% by weight anionic fluorosurfactant; and a member selected from the group comprising dried yellow corn meal, corn grit, crushed wheat, and cracked wheat in a concentration of 94.7 to 94.5% by weight, as the carrier. Soybean oil, in a concentration of 5.0% by weight, is preferably applied as an attractant. A method for formulating the insecticide by dissolving the anionic fluorosurfactant in a solvent, such as acetone or methanol, and mixing the resulting solution with the carrier, is also disclosed. Formulations consist of the active ingredient (anionic fluorosurfactant) dissolved in the solvent and then absorbed onto the carrier, soybean oil then preferably being added as an attractant.

13 Claims, 2 Drawing Sheets



ABSTRACT

An effective delayed-action insecticide for use against the imported fire ant (IFA), as well as against infestations of other insects. The insecticide consists of an oil insoluble surfactant, preferably an anionic fluorochemical surfactant, as the active ingredient. The insecticide further consists of a carrier, which is a source of food for the IFA or other insect. This carrier is impregnated with the anionic fluorosurfactant to provide a toxic bait. In a preferred embodiment, the insecticide contains 0.3 to 0.5% by weight anionic fluorosurfactant; and a member selected from the group comprising dried yellow corn meal, corn grit, crushed wheat, and cracked wheat in a concentration of 94.7 to 94.5% by weight, as the carrier. Soybean oil, in a concentration of 5.0% by weight, is preferably applied as an attractant. A method for formulating the insecticide by dissolving the anionic fluorosurfactant in a solvent, such as acetone or methanol, and mixing the resulting solution with the carrier, is also disclosed. Formulations consist of the active ingredient (anionic fluorosurfactant) dissolved in the solvent and then absorbed onto the carrier, soybean oil then preferably being added as an attractant.